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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/873,978	06/12/97	KAYYEM J	A-63761-1/RF

HM12/0907

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EXAMINER	
MARSCHEL, A	
ART UNIT	**PAPER NUMBER**
1631	26

DATE MAILED: 09/07/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/873,978	Kayyem et al.
Examiner	**Group Art Unit**
Ardin Marschel	1631

☒ Responsive to communication(s) filed on *Jun 19, 2000*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *47-67* is/are pending in the applicat

[redacted], Claim(s) *1-46 have been canceled.* [redacted]

☒ Claim(s) *47, 48, 57, and 62-67* is/are allowed.

☒ Claim(s) *49-56 and 58-61* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

The art unit designated for this application has changed. Applicant(s) are hereby informed that future correspondence should be directed to Art Unit 1631.

Applicants' arguments, filed 6/19/00, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Claims 50, 51, 55, 56, and 59-61 are rejected, as discussed below, under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50 describes a composition wherein an oligomer has a formula with confusingly 2 open bonds at each end. The unclarity is a lack of clear antecedent basis as to what is linked at these open bonds because claim 49 from which claim 50 depends cites "a nucleoside" which is a single entity. What is meant by citing a oligomer in claim 50 which indicates two bonds for attachment while being dependent from claim 49 with only one entity cited as potentially being attached thereto? Clarification via clearer claims wording is requested. This unclarity is also present in claims 51, 55, 56, and 59-61.

In claims 59 and 60 the phrase "said spacer" is cited whereas there is no antecedent basis for such a spacer in claim 56 from which claims 59 or 60 depends. Clarification is requested via clearer claim wording.

Similarly, claim 61 cites "said passivation layer" which lacks antecedent basis.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 49, 52, and 53 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Garnier (P/N 6,096,825).

Garnier, taken as a whole, discloses conjugates between a conductive polymer and one or more biomolecules such as a nucleic acid polymer as disclosed in column 2, line 63, through column 3, line 34 with further nucleic acids therein described generally in column 3, line 58, through column 5, line 3. Example 5 starting in column 11, line 53, specifically cites the preparation of such

a conjugate. The conductive polymer of this conjugate is made up of polypyrrole and the nucleic acid is at least made up of a nucleoside and thus anticipates instant claim 49.

Claims 49, 53, and 54 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Teoule et al.(WO 94/22889); already of record.

In the abstract and in Figures 3, 7, 8, and 10 the reference discloses polypyrrole/nucleoside conjugates which anticipate the instant claims.

Claims 49, 53, and 54 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Teoule et al.(P/N 5,837,859).

In the abstract and in Figures 3, 7, 8, and 10 the reference discloses polypyrrole/nucleoside conjugates which anticipate the instant claims.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed

invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 49, 50, 52, 53, and 55 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Garnier (P/N 6,096,825) in view of Morrison et al.

Garnier has been summarized above as disclosing a conductive polymer made up of pyrrole subunits conjugated to nucleic acid which at least comprises a nucleoside. It is noted that these pyrrole subunits are aromatic as verified on pages 1004-1005 of Morrison et al. R groups of such nucleic acids are described as optionally being H or nucleic acids etc. in the reference in column 2, line 63, through column 5, line 63. Species within a generic description are deemed to be both suggested and motivated under 35 U.S.C. § 103(a) as being species which are within those of the instant claims. In instant claim 50 the group Y is aromatic, e selected as zero, and n and m selected to result in a polymer which is what is prepared in Garnier.

Thus, it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to prepare

conjugates of Garnier which are species which are also instantly claimed thus resulting in the instant invention.

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 58 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9, 10, 28, and 29 of U.S. Patent Number 6,096,273. Although the conflicting claims are not identical, they are not patentably distinct from each other because the respective claims contain common embodiments directed to electrodes with nucleic acid and a passivation agent or agents. Applicants argue that a restriction during the prosecution of the U.S. Patent 6,096,273 prevents this rejection due to the instant application being a divisional thereof. In response, the filing of a divisional does not prevent submission by applicants of one or more claims which

were examined, even after a restriction requirement, in said divisional as a separate restriction group. Apparently this occurred in the instant application wherein applicants have submitted electrode claim 58 which is also claimed regarding certain common embodiments in said U.S. Patent, listed above. Thus, this rejection is still deemed proper. This rejection is no longer provisional due to the patenting of U.S. Application Serial Number 08/743,798.

Claims 47, 48, 57, and 62-67 are allowed.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703)305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703) 308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (703) 308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technical Center receptionist whose telephone number is (703) 308-0196.

August 31, 2000

ARDIN H. MARSCHEL
PRIMARY EXAMINER